

A consultation on the 2020 Challenge for Scotland's Biodiversity.

Response from the Wildlife Forum at Scottish Environment link, supported by the following task forces: Freshwater Task Force and Marine Task Force.

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations - 34 member bodies representing a spectrum of environmental and associated cultural heritage interests with the common goal of contributing to a more environmentally sustainable society. LINK provides a forum and network for its members; and assists communication between members, government and civic society. Further information on LINK is available at www.scotlink.org

Members of Link's Wildlife Forum are all engaged in the everyday work of conserving Scotland's biodiversity and its landscapes on the ground and through policy work. Since before the publication of the Scottish Biodiversity Strategy in 2004, members of the Wildlife Forum have contributed very significant time and resources to the Scottish biodiversity policy process, representing Link on every relevant delivery group for that strategy since 2004. Link is currently represented on the Scottish Biodiversity Committee.

Our response to the current consultation has been put together following detailed discussions of the review document. Our response outlines some general points on the review aims and some of the concepts included within it. We have then made more detailed comments on each of the chapters, making suggestions on the chapter outcome and the key steps needed to reach it, in response to the consultation questions. We trust these suggestions will be useful and we would welcome further dialogue with the Scottish Government on any points raised here.

1. Introduction

Scotland, along with all other countries in the world, is failing to meet its biodiversity target to halt the loss of biodiversity. Biodiversity is the foundation of all life on earth and its continued loss has been called "Europe's silent crisis"¹. The loss of biodiversity across the world is resulting in declining well-being and is exacerbating poverty². The ongoing decline in diversity, at species, habitat and ecosystem levels and the decrease in habitat ecosystem stability is resulting in loss of supporting, provisioning, regulating and cultural services³. Continuing to lose biodiversity is not an option in a sustainable Scotland. The regulating, provisioning and cultural services provided by Scotland's biodiversity are increasingly recognised as having significant economic value to Scotland, yet we are witnessing an ongoing deterioration in service delivery in all of Scotland's habitats, except woodlands. Over 80% of services provided by Scotland's biodiversity are showing deterioration or equivocal changes⁴.

We believe that this review should provide a vision, as well as guidance and leadership on what needs to be done to alter our current trajectory, to reverse rates of change and to build wider public support.

This is a good time to conduct such a review and we agree that today's situation calls for a step change in delivery to halt the loss of biodiversity. To this end, we would expect a review to do two things: 1. to assess the successes and failures of delivery of the SBS and 2 to broaden its approach, to include ecosystem

¹ <http://www.publicserviceeurope.com/article/1425/loss-of-biodiversity-europes-silent-crisis>

² Millennium Ecosystem Assessment (2005). *Ecosystems and human well-being: Biodiversity synthesis*.

³ Cardinale et al (2011) The functional role of producer diversity in ecosystems. *American Journal of Botany* 98, 572-592.

⁴ UK National Ecosystem Assessment (2011) *The UK National Ecosystem Assessment*

approaches, and improve its delivery by enabling organisations and individuals to take action to halt the loss of biodiversity in Scotland. If Challenge 2020 is designated as part of the SBS whose aims and objectives still stand, which we strongly support, and which are reported upon every 3 years, as required in the Nature Conservation Act, it is imperative that the challenge includes clear, measurable priorities for action. Without such priorities for action clearly included, this document cannot, yet, deliver a 'step change' in delivery.

Against this background and the need for urgent, coordinated and effective action, the current review of action to deliver the conservation and enhancement of biodiversity in Scotland⁵ is, we believe, inadequate and insufficiently ambitious. In our response, we have identified the key steps required for Scotland to make progress towards our biodiversity targets. To be world leaders in this area and to match the international reputation of our wildlife and landscapes, Scotland needs to achieve much, much more.

2. The stated review aims

Two of the three overarching aims of this review are, we believe, inappropriate and / or unambitious for a biodiversity strategy, in a country like Scotland, which has a highly valuable environment on which much of its wealth and international reputation rests.

- *increase the general level of biodiversity on land and in our seas, and support healthy, well-functioning ecosystems;*

We query the term "general level of biodiversity". What is this and will increasing it help the conservation and enhancement of Scotland's biodiversity? Is this aim consistent with the Aichi targets?

- *engage people with the natural world, for the health and well-being benefits that this brings, and empower them to have a say in decisions about their environment;*

A laudable aim and one that we work towards and agree should also be a government aim of this review.

- *maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth.*

In the context of this review of delivery of conservation and enhancement of biodiversity, we do not believe that limiting its aim to increasing economic growth is appropriate. Rather, the review, and government, should aim to secure the sustainable well-being of the population⁶. Link has commissioned work exploring this concept, which will be launched in autumn 2012 and which we hope will contribute to this much wider debate. Many of the services Scotland's biodiversity and ecosystems provide are not easily valued⁷ and in an ever changing world, tomorrow's services are likely to be ones that today we take for granted and do not value in monetary terms or, indeed, have not yet identified. Increasing economic growth should not be the aim of this review, though it may well be a welcome by-product of conserving biodiversity.

3. The real issue that needs to be tackled

We believe that delivery is the key issue for biodiversity in Scotland with lack of effective delivery being the key barrier to successes to date. This has been compounded by the lack of compulsion to act for biodiversity.

To address this, we believe that the key aim of review should be:

To halt the loss of biodiversity through the active engagement and budgeting of the Scottish Government and public bodies enabling them to act and to support action by the businesses and people of Scotland

⁵ Scottish Executive (2004) *Scotland's biodiversity: it's in your hands*

⁶ www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf

⁷ UK National Ecosystem Assessment (2011) *The UK National Ecosystem Assessment. Chapter 19: Scotland*

This will require:

- A clear frame of reference: this should be the EU biodiversity target to halt the loss of biodiversity by 2020, thus delivering the 2020 Aichi Targets in Scotland.
- Clear and explicit assignment of specific roles and responsibilities for public bodies in relation to habitats and species
- A focus on the adequate resourcing of biodiversity conservation to 2020.
- A commitment to a targeted species management programme, including carefully selected keystone and indicator species which link to wider habitat and ecosystem health
- A commitment to regular, clear, transparent and engaging reporting of biodiversity trends / targets / projects at all scales

We believe significant progress could be made if public bodies were committed to and delivering their duty to further the conservation of biodiversity⁸. By taking responsibility we mean that appropriate public bodies are allocated responsibility for the protection and conservation of key habitats across Scotland. They would be compelled whenever a biodiversity-rich piece of land changes hands to provide the new owner with information and advice on the value plus access to funding, whether through agri-environment or other funding schemes. Whatever the structure of public bodies in Scotland in future may be, roles and responsibilities need to be allocated accordingly. Local authorities would be similarly responsible for action at local level.

We believe that success for the Scottish Biodiversity Strategy and its review now depends on all public organisations and businesses delivering their responsibilities and action for biodiversity, and recognising that increasing their positive contribution to nature and landscapes can help them to better meet their own corporate priorities and performance. This requires strong leadership, which we would expect to see from SNH as the government's champion for biodiversity.

4. Review focus

We have noted, as we worked through this review, that the focus of many chapters is not on biodiversity but on other issues. Given that the review aims to identify ways of making progress in the conservation and enhancement of biodiversity we find this odd. We have therefore indicated where the focus should be switched, so that the net result of this review is improved conservation and enhancement of biodiversity rather than improved health or increased economic growth. These have their own strategies, where the conservation and enhancement of biodiversity should be included. Biodiversity is an important tool to help us achieve these other aims but this review should focus on conserving biodiversity so that it remains able to contribute to these other aims in the future.

5. Wildlife management

Wildlife management is one of the key tools in conserving biodiversity. However, wildlife management, aiming to ensure sustainable populations of native species are robust enough to survive into the long term future, is not adequately covered in this document. Here, the term "Wildlife Management Framework" is used, which refers to a specific piece of work by Scottish Natural Heritage and which does not cover all species groups (plants, fungi and invertebrates are conspicuously absent) and is limited to the control of species. It specifically does not cover the wider and urgent need for acting to ensure sustainable species populations. Another aspect of the wildlife management that is not currently addressed through the SNH work is achieving sustainable ecosystem management for future sustainability.

Deer management is a key wildlife management issue. Under the provisions of the WANE Act 2011 deer management remains effectively voluntary, which currently is leading to conflict between landowners with

⁸ Nature Conservation (Scotland) Act 2004

respect to deer densities for sport shooting and for ecological protection and enhancement. This review should include a commitment to achieve deer densities within the carrying capacity of their environment. If voluntary agreements are not proven capable of achieving this within 8 years, statutory, legally binding deer management plans where all public objectives are taken into account in cull target setting should be put in place.

6. Protected areas:

Protected areas are another key tool in conserving biodiversity for future generations. Protected areas provide hubs to sustain species and habitats and from where they can spread through the wider countryside as opportunities are created. However, Scotland's protected site network needs to be fit for purpose to achieve this aim. This review assumes that the current protected area network is indeed fit. We are still working towards achieving our target of 95% of sites in favourable condition and we welcome all the effort that is being made to achieve this target. This is a very important target to work towards. However, unless Scotland's protected area network is assessed for completeness, managed to ensure it protects key species populations and habitats and expanded if necessary, its role as network hubs is negated⁹¹⁰.

7. Land use

The Scottish Land Use Strategy¹¹ is a key delivery tool and should be mentioned explicitly. There is also a lack of urban land use key steps that should be included in relevant chapters.

8. Natural capital:

We are concerned about the use of the Natural Capital concept, limited to the current monetary value of the services provided today, because we do not believe that the non-market values have been adequately captured, nor that there has been sufficient allowance for the option values for as yet unidentified uses and values. It is crucial to include mechanisms to protect the social, cultural moral and aesthetic values of biodiversity. This calls for the use of the precautionary principle, as outlined in the Millennium Ecosystem Assessment¹², in order to capture the full market and non-market value of biodiversity now and in an uncertain future.

9. Resources:

Halting the loss of biodiversity is not resource free. As the Economics of Ecosystem and Biodiversity reports note: "more political will, planning and additional resources are all essential"¹³. Against the current background of recession, we would underline the risk of relying on agri-environment funding alone to support all necessary biodiversity action. With the potential for real declines in Common Agricultural Policy budgets, other sources of funding or support will be required. This is not addressed in this review. The only chapter that mentions investment is chapter 3, on biodiversity and health.

10. Achieving progress:

The key barrier to achieving progress towards our biodiversity targets to date has been the fact that public bodies have not been required or compelled to act for biodiversity. Any progress that has been achieved since 2004 has largely been as a result of other activities, not as a direct result of the Scottish Biodiversity Strategy. In this review therefore the key challenge will be to identify key steps that are measurable, realistic and will achieve the outcome. We have made suggestions below: some key steps are repeated in different chapters as they deliver towards more than one outcome.

⁹ Plant Link Scotland (2005) *Strategy for the conservation of lower plants and fungi in Scotland*.

¹⁰ Initiative for Scottish Invertebrates (2009) *A strategy for Scottish invertebrate conservation*.

¹¹ Scottish Government (2011) *Getting the best from our land - A land use strategy for Scotland*

¹² Millennium Ecosystem Assessment (2005). *Ecosystems and human well-being: Biodiversity synthesis*.

¹³ The Economics of Ecosystems and Biodiversity (2009) *The Economics of ecosystems and Biodiversity for National and International Policy Makers*.

Comments on Review chapters:

Chapter 1. Healthy ecosystems & ecosystem services:

Outcome:

Scotland's marine and terrestrial ecosystems are restored to good ecological health so they provide the best of environmental benefits for today and for the future.

Key steps

- Fund and support ecosystem restoration and management, especially in catchments that have experienced the greatest historic degradation.
- Meet requirements of the Water Framework Directive and Marine Strategy Framework Directive.
- All land use decisions and plans result in no net loss of important wildlife and habitats, based on an understanding of ecosystems, and take full account of land use impacts on the ecosystems services.
- Complete the "habitat map of Scotland" creating for the first time a map of habitats across Scotland to inform long term development of the National Ecological Network and identifying and defining areas of HNV farming and forestry.
- Develop the National Ecological Network, (is this just terrestrial or also marine?), a long term project to restore health and connectivity to Scotland's ecosystems.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

Chapter 2. Natural capital (see section 10 above) & resource use efficiency:

Outcome:

Ensure that Scotland increases its Natural Capital to pass on to the next generation while ensuring that natural resources are contributing to strong sustainable economic growth

Key steps:

- Inform decision-making and market-based approaches using established market and non market values for biodiversity and ecosystem services.
- Restore 100,000 hectares of peatland to favourable condition, using carbon offsetting by public bodies as a funding mechanism where appropriate
- Restore 500 hectares of coastal dune and heath.
- Restore 500 km of natural treeline
- Restore 1,000 ha of montane scrub
- If biodiversity offsetting is used, it should reflect the real value of existing and destroyed habitats so that offsetting can ensure real equivalents. Offsets should not be agreed on a numerical one to one basis.
- Develop and monitoring a programme of biodiversity outcomes funded through SRDP such that sustainable economic growth promotes biodiversity
- Ensure future SRDP spending achieves measured improvements in biodiversity.

Ecosystem services are the services that keep us alive. Maintaining these services is, obviously, of the highest priority. If we are aiming to retain our ecosystem services, conserving species diversity is not a luxury. A recent study, published in *Nature*, has shown that 'even more species will be needed to maintain ecosystem functioning and services than previously suggested ... although species may appear functionally redundant when one function is considered under one set of environmental conditions, many species are needed to maintain multiple functions at multiple times and places in a changing world. ... Furthermore, note that declines in local diversity which are far more common than global extinctions, will also decrease ecosystem functioning and services within some contexts.'¹⁴

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

Chapter 3. Biodiversity, health & quality of life

Outcome:

Improved biodiversity through focussed investment in the stewardship and enjoyment of nature and landscapes, which results in through increased appreciation and experience of natural landscapes by a wider variety of people, with consequent improvements in the health and quality of life for the people of Scotland.

Key steps:

- Focus investment in the stewardship and enjoyment of nature and landscapes
- Ensure everyone has access to green space local to where they live and work.
- Ensure wild land and wild places are protected such that people can view and experience areas where natural processes prevail
- Provide opportunities for everyone to regularly experience and enjoy nature. Biodiversity is there for everyone and not just selected groups.
- Ensure the NHS integrates knowledge and enjoyment of biodiversity into specific programmes with regard to health promotion, aiming to improve health and well-being through physical activity connected with nature
- Ensure biodiversity is included in the preventative spending agenda.
- Require local authorities and communities to improve local environments and their biodiversity, using green space and green networks, allowing nature to flourish and so enhancing the quality of life for people who live there.
- Build on Scotland's culture and the value it puts on our environment to ensure future generations continue to be inspired.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

¹⁴ Isbell, F., Calcagno, V., Hector, A *et al.* (2011) 'High plant diversity is needed to maintain ecosystem services', *Nature*, 477: 199-202.

Chapter 4. Wildlife, habitats & protected places - connecting nature

Outcome:

The special value and international importance of Scotland's nature on land and at sea is assured, and the quality and quantity of our wildlife is improving and flourishing, assisted by a highly effective network of protected places.

Key steps:

- Review the protected areas series for completeness and fitness for purpose, making amendments of designations as appropriate
- Achieve favourable condition of all protected sites for all species and habitats that occur there.
- Align habitat restoration outwith protected areas with national goals for improving ecosystem health, with local priorities determined at the catchment or landscape scale.
- Integrate protected areas policy with action for wider habitats to combat fragmentation and restore key habitats and landscapes.
- Develop a fully comprehensive wildlife management framework to address the key priorities for sustainable management, conservation and conflict issues, including reintroductions and invasive non-native species.
- Develop a sustainable ecosystem stewardship framework that builds a future for Scotland's rare and threatened species.
- Assess the success of the voluntary approach to sustainable deer management by 2020 and bring forward amended legislation if required
- Restore biodiversity in the intensively farmed and forested landscape, measured using an index of abundance of priority farmland species
- Complete the "habitat map of Scotland" creating for the first time a map of habitats across Scotland to inform long term development of the National Ecological Network and including the identification of areas of HNV farming and forestry.
- Ensure no net-loss of important marine or terrestrial wildlife
- Maintain the biodiversity value of High Nature Value Farming and Forestry.
- Eradicate rhododendron from Natura sites and prevent invasion by known damaging non native invasive species into any uninvaded catchments.
- Establish early warning and rapid response capacity for damaging invasive non native species
- Address the drivers of change that are resulting in the loss of plant diversity in all habitats in Scotland, as measured in the UK Countryside Survey.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

Chapter 5. Land & freshwater use & management

Outcome:

Nature is flourishing and ecosystems are resilient as a result of sustainable land and water management practices and this is increasingly helping rural and urban businesses and the economy to prosper.

Key steps:

- Implement the Scottish Land Use Strategy and River Basin Management Plans and ensure that they foster sustainable use of land and water resources in urban and rural areas of Scotland and that they put biodiversity at the heart of integrated planning and decision making ('an ecosystem approach').
- Require that at least 10% of all land holdings are in Ecological Focus Areas under new SRDP roll out
- Ensure that measures implemented under Common Agricultural Policy reform achieve measured improvements in biodiversity.
- Deliver measurable improvements in wildlife habitats and landscape features across all land use systems.
- Increase financial support for 'High Nature Value' farming and forestry systems.
- Create 500km of natural tree line
- Achieve and maintain good ecological status for all groundwater and surface water bodies in Scotland, and achieve favourable condition for all water-dependent Natura sites by 2015
- Ensure that biodiversity and ecosystem objectives are fully integrated into all Flood Risk Management Plans, prioritising restoration of wetland habitats and woodland to provide sustainable flood management, with a variety of clearly identified demonstration sites.
- Restore and expand the coverage of habitats that lock carbon in soil and vegetation, helping to mitigate and adapt to climate change
- Ensure that steps are taken to facilitate sustainable land management in drinking water catchments, to enhance habitat for biodiversity in addition to improving raw water quality.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

Chapter 6. Marine & coastal

Outcome:

Scotland's marine and coastal environments are clean, healthy, safe, productive and biologically diverse, meeting the long term needs of people and nature.

Key steps:

- Recognise that marine and coastal species and habitats surrounding Scotland are in a largely degraded conditions, as identified by the Scottish Government's own Marine Atlas. The 2012 environmental baseline that must inform current and future action is therefore severely modified and degraded one, largely as a consequence of human activity.
- Adopt a National Marine Plan that "protects and, where appropriate, enhances¹⁵" the marine environment and delivers good environmental status.
- Designate 'an ecologically coherent network' of well-managed Marine Protected Areas that follows the ecological design criteria identified by OSPAR, represents the best if nature around Scotland's coasts and in our seas, and helps to protect and, where appropriate, also recover, Scotland's marine environment
- Collate information on the location and sensitivity of Priority Marine Features, and make this information available to support their protection and, where appropriate, recovery.
- Restore Common Fishery policy fish stocks to levels above those that can produce the maximum sustainable yield by 2015.

¹⁵ Marine (Scotland) Act 2010

- Ensure inshore fisheries plans consider and address the wider marine biodiversity and ecosystem impacts of fishing. This is in line with the Scottish Government's high level environmental objective for Inshore Fisheries Plans to 'maintain and restore the quality of the inshore marine environment for fisheries and for wildlife'.
- Implement a rapid-response framework to prevent colonisation of invasive new species in Scotland's seas and islands.
- Improve the monitoring of the marine environment to identify changes there and guide progress towards the above objectives.
- Improve understanding of how coastal ecosystems are likely to adapt to climate change and develop appropriate strategies for coastal zone management, ensuring integration with flood risk management strategies.
- Recognise the role of, and protect, marine habitats such as kelp forests and sea grass beds that act as carbon sinks to help mitigate climate change impacts
- Achieve good ecological status of all coastal waters through the integrated and sustainable management of Scotland's river catchments.
- Restore 500 hectares of coastal dune and heath.
- Achieve good environmental status for Scotland's seas, using the Scottish Government's 3 pillar approach to nature conservation, including through marine planning and other wider seas measures such as fisheries management.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

Chapter 7. Measuring progress:

Outcome:

Annual reports to parliament demonstrating clear progress against a suite of relevant indicators against which we can track progress and regress to drive forward the ambitions of the Strategy.

Key steps:

- Develop a suite of comprehensive and relevant (ecologically coherent) indicators so that we can monitor progress in meeting the Aichi targets leading up to 2020.
- Develop a suite of indicators demonstrating the connection between biodiversity and improved health and biodiversity and enhanced economy.
- Minister reports annually to parliament on progress towards the outcomes in this review
- Public bodies report on a three yearly basis on their compliance with the biodiversity duty¹⁶
- A Scottish Biodiversity Information Forum will provide the mechanism to collect and use biodiversity data in Scotland.
- An enhanced role and resources for Scottish Biodiversity Committee to lead assessment of progress towards and require corrective action where insufficient progress is being made.
- Identify the means of measuring benefits to people's health and the Scottish economy of improved biodiversity
- Involve many more people in data recording and collation and in improving our understanding of the poorly known elements of nature and its role in sustaining life.

¹⁶ Wildlife & Natural Environment (Scotland) Act 2011

- Ensure marine plans, River Basin Management Plans and Scottish Land Use Strategy have quantifiable measurements that demonstrate improvement in biodiversity.
- Maintain resources for continued Site Condition Monitoring and mapping to measure progress against the Scottish Government's National Performance Framework indicator to improve the condition of protected nature sites
- Strengthen the biodiversity indicators in the National Performance Framework
- Communicate biodiversity and ecosystem health indicators in a clear and inspiring way, including through Scotland's Environment Web.
- Ensure that the Scottish social attitude indicators properly reflect attitudes to biodiversity as a method of validating the success of communication
- Provide adequate resources to collate information on location, sensitivity, pressures, impacts and trends affecting terrestrial and marine habitats and species, particularly Priority Marine Features, to help support their protection, and where appropriate, recovery.

Public body lead:

Public lead bodies need to be identified for each habitat type and for each key step above.

Resources required:

Appropriate and adequate resources need to be identified to ensure action on each key step above is taken.

This response is supported by the following organisations:

Plantlife Scotland
RSPB Scotland
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